

AMENDMENTS

Please amend the present application as follows:

In the Claims

1-19. (Cancelled)

20. (Currently Amended) A ~~failover~~ storage system, comprising:

a first iSCSI controller operable to receive a SCSI I/O request over a TCP/IP network;

and

a second iSCSI controller coupled to the first iSCSI controller, the second iSCSI controller coupled to the first iSCSI controller, wherein the first iSCSI controller is configured to receive an I/O request over a network and copy the SCSI I/O request to memory associated with corresponding to the second iSCSI controller and acknowledge to a host that the SCSI I/O request has been committed, and wherein responsive to detecting a failure of the first iSCSI controller, if the second iSCSI controller determines ~~whether~~ that the SCSI I/O request has been committed but not completed, by the first iSCSI controller, wherein responsive to determining that the I/O request has been committed, the second iSCSI controller assumes the network address of the first iSCSI controller, retrieves the copy of the SCSI I/O request from the memory, and completes ~~writes the copy of the~~ SCSI I/O request to a storage system.

21. (Cancelled)

22. (Cancelled)

23. (Currently Amended) The system of claim ~~24~~ 20, wherein the second iSCSI controller includes a first network address and a second network address, the first network address corresponding to a network address of the second iSCSI controller and the second network address corresponding to the network address of the first iSCSI controller.
24. (Previously presented) The system of claim 20, further including a first iSCSI TCP/IP protocol stack coupled between the first iSCSI controller and the network, and a second iSCSI TCP/IP protocol stack coupled between the second iSCSI controller and the network.
25. (Previously presented) The system of claim 20, wherein the first iSCSI controller and the second iSCSI controller are each configured to communicate with a remotely located host server over the network.
26. (Currently Amended) The system of claim 20, wherein the ~~network includes an IP network~~ SCSI I/O request is removed from the second iSCSI controller at a time corresponding to the completion of the SCSI I/O request.
27. (Previously presented) The system of claim 20, wherein the storage system includes a fiber channel storage unit.
28. (Previously presented) The system of claim 20, wherein the second iSCSI controller assuming the network address of the first iSCSI controller further comprises retrieving the network address of the first iSCSI controller from the memory.

29. (Currently Amended) A ~~failover~~ storage method, comprising:
- receiving at a first TCP/IP network address ~~an~~ a SCSI I/O request;
 - copying the SCSI I/O request;
 - storing the copy of the SCSI I/O request at a second TCP/IP network address and
 - acknowledging to a host that the SCSI I/O request has been committed;
 - detecting whether the SCSI I/O request can be processed at the first TCP/IP network address;
 - responsive to detecting that the SCSI I/O request cannot be processed at the first TCP/IP network address, determining whether the SCSI I/O request has been committed but not completed;
 - responsive to determining that the SCSI I/O request has been committed but not completed, assuming the first TCP/IP network address from the second TCP/IP network address;
 - retrieving the copy of the SCSI I/O request; and
 - writing or reading data corresponding to the copy of the SCSI I/O request to or from a storage system.
30. (Cancelled)
31. (Cancelled)
32. (Currently Amended) The method of claim 29, wherein receiving ~~an~~ a SCSI I/O request includes receiving the SCSI I/O request over a TCP/IP network from the ~~a remotely~~ located host server.

33. (Currently Amended) The method of claim 29, wherein assuming the first TCP/IP network address responsive to determining that the SCSI I/O request has been committed further comprises retrieving the first TCP/IP network address from memory.

34. (Currently Amended) A ~~failover~~ storage system, comprising:

means for detecting whether ~~an~~ a SCSI I/O request can be processed at a first TCP/IP network address;

responsive to detecting that the SCSI I/O request cannot be processed at the first TCP/IP network address, means for determining whether the SCSI I/O request has been committed;

responsive to determining that the SCSI I/O request has been committed, means for assuming the first TCP/IP network address from ~~the~~ a second TCP/IP network address;

means for retrieving ~~the~~ a copy of the SCSI I/O request; and

means for writing or reading data corresponding to the copy of the SCSI I/O request to or from a storage system.

35. (Currently Amended) A network controller for use on a network, comprising:

a communication port configured to receive status information and a copy of ~~an~~ a SCSI I/O request from a second network controller and a SCSI I/O request over a TCP/IP network;

a memory configured to store the copy of the SCSI I/O request; and

logic configured to detect a failure of the second network controller and determine whether the SCSI I/O request has been committed by the second network controller, wherein responsive to determining that the SCSI I/O request has been committed, the logic further configured to assume the network address of the second network controller, retrieve the copy

of the SCSI I/O request from the memory, and write or read data corresponding to the copy of the SCSI I/O request to or from a storage system.

36. (Cancelled)

37. (Cancelled)

38. (Currently Amended) The network controller of claim ~~36~~ 35, wherein the logic is configured to assign the network controller with a primary network address and a secondary network address, the primary network address corresponding to the network address of the network controller before detected failure of the second network controller, the secondary network address corresponding to the network address of the second network controller substantially upon detected failure of the second network controller.

39. (Previously presented) The network controller of claim 35, further including an iSCSI TCP/IP protocol stack coupled between the network controller and the network.

40. (Previously presented) The network controller of claim 35, wherein the network controller is configured as an iSCSI controller.

41. (Previously presented) The network controller of claim 35, wherein the logic is configured to communicate with a remotely located host server over the network.

42. (Previously presented) The network controller of claim 35, wherein the network includes an IP network.

43. (Previously presented) The network controller of claim 35, further including a second communication port configured to enable access to the storage system.

44. (Currently Amended) The network controller of claim 35, wherein the logic assuming the network address responsive to determining that the SCSI I/O request has been committed further comprises the logic retrieving the network address of the second network controller from the memory.

45. (Cancelled)

46. (New) A storage system, comprising:

a first iSCSI controller; and

a second iSCSI controller, the second iSCSI controller coupled to the first iSCSI controller, the first iSCSI controller configured to receive an I/O request over a network, wherein responsive to the second iSCSI controller detecting a failure of the first iSCSI controller, the second iSCSI controller assumes the network address of the first iSCSI controller, identifies to a server that the second iSCSI controller has assumed the network address of the first iSCSI controller, receives the I/O request resent from the server, and writes or reads data corresponding to the resent I/O request to or from a storage system.

47. (New) A storage method, comprising:

receiving at a first TCP/IP network address a SCSI I/O request;

detecting whether the SCSI I/O request can be processed at the first TCP/IP network address;

responsive to detecting that the SCSI I/O request cannot be processed at the first TCP/IP network address, assuming the first TCP/IP network address from a second TCP/IP network address;

identifying to a server the assumption of the first TCP/IP network address from the second TCP/IP network address;

receiving the SCSI I/O request resent from the server; and

writing or reading data corresponding to the resent SCSI I/O request to or from a storage system.

48. (New) The system of claim 34, further comprising means for acknowledging to a host that the SCSI I/O request has been committed.